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**VIA E-MAIL to: brusten@burlingtonvt.gov**

Mr. Robert H. Rusten  
Chief Administrative Officer  
City of Burlington  
149 Church Street  
Burlington, VT 05401

**RE: Application of “open-group” funding technique to the Burlington Employees’ Retirement System**

Dear Bob:

I am writing to provide an update of the application of the so-called “open group” valuation method to the Burlington Employees’ Retirement System (BERS).

The open-group method and the results of its initial application to the funding of the BERS were reported in my letter to you of April 23, 2015. Subsequently, an actuarial valuation of the BERS was performed as of June 30, 2015. This valuation was prepared using traditional closed-group valuation methods and assumptions that are summarized in our report on this valuation. In that report, we noted that several changes had been made to the provisions of the BERS that would result in a lowering of the cost of benefits for those who were subject to those provisions. At the same time, the experience of the System in the period ending on June 30, 2015, had been less favorable than is assumed in funding, largely due to investment earnings below expected levels. As a result of these two developments, application of the open-group method still produces contributions below those that would be developed using traditional closed-group methods, it does not result in as rapid a degree of projected improvement in the coverage of the System’s projected accrued liability by the actuarial value of assets as it did a year ago.

The attainment of projected improvement in the funded status of the system is raised in the first decade of projections if the smoothing (i.e., gradual recognition of investment returns above or below those assumed) is extended from the five years used in the annual closed-group valuations of the System to ten years. The use of a ten-year asset smoothing period for this purpose is consistent with the requirements of applicable actuarial standards of practice, although it is recommended that some limit be placed on the degree to which the result of the smoothing method in any year may differ from the market value of assets at that time. A so-called “corridor” of 20% for this purpose is common. In any case, measurement of the funded status using an actuarial value of assets based on ten-year smoothing will produce higher projected funded statuses over the first nine years of the projection, during which the projected actuarial and market values of assets converge. Projected funded ratios based on actuarial and market values of assets in later years are equal.

Applying the open-group method using the data, methods (except, as just described substituting ten-year asset smoothing for five-year smoothing) and assumptions utilized in the June 30, 2015, actuarial valuation of the BERS, and performing open-group forecasts by assuming the active population of the BERS remains stable in future years through the addition of new entrants who possess the same demographic characteristics as those of new entrants to the BERS in the recent past, we produce the following projections of future years’ funding outcomes:



Fiscal Year	Projected City contribution	Projected Actuarial Value of Assets	Projected Funded Status
2016	9,059,675	177,811,162	74.11%
2017	9,109,503	187,317,436	74.88%
2018	9,159,605	196,958,929	75.63%
2019	9,209,983	206,723,711	76.34%
2020	9,260,638	216,669,265	77.03%
2021	9,311,572	226,704,940	77.71%
2022	9,362,785	237,143,925	78.47%
2023	9,414,281	247,689,694	79.24%
2024	9,466,059	257,555,420	79.77%
2025	9,518,123	268,624,010	80.71%
2026	9,570,472	279,646,950	81.62%
2027	9,623,110	290,801,325	82.53%
2028	9,676,037	301,970,851	83.42%
2029	9,729,255	313,264,552	84.32%
2030	9,782,766	324,697,526	85.22%
2031	9,797,440	336,382,621	86.12%
2032	9,812,136	348,278,695	87.02%
2033	9,826,855	360,366,935	87.93%
2034	9,841,595	372,712,946	88.85%
2035	9,856,357	385,328,628	89.78%
2036	9,871,142	398,111,236	90.73%
2037	9,885,948	411,150,723	91.70%
2038	9,900,777	424,430,693	92.70%
2039	9,915,629	437,769,516	93.73%
2040	9,930,502	451,111,857	94.79%
2041	9,945,398	464,490,891	95.89%
2042	9,960,316	477,841,661	97.04%
2043	9,975,256	491,087,370	98.25%
2044	9,990,219	504,266,494	99.52%
2045	10,005,205	517,446,241	100.86%

I should note that these figures are estimates and were prepared, except where noted above, on the basis of the data, assumptions and methods used in the 2015 actuarial valuation of the BERS as well as the open-group methodology outlined in our letter to you of April 23, 2015. Our usual cautionary note regarding the variability of future outcomes ("Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. An analysis of the potential range of such future differences is beyond the scope of this report.") is particularly relevant here, as there are more aspects of future that can move



in ways that will make future outcomes better or worse than that projected here. Moreover, to the best of our knowledge, the BERS remains the first and only retirement system to adopt this open-group method (as outlined in the April 23, 2015, letter and accompanying paper). As a result, the methodology must be considered more fluid and subject to adaptation over time than longer-established actuarial methodologies. For this reason as well, projected outcomes under this method should be viewed with a strong sense of the potential for the outcome of future years' calculations to differ substantially from them, as would also be the case when using a closed-group funding method.

Buck has prepared this report for the City of Burlington for use in review of the operation of the plan and the determination of contributions to be made to the plan. Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, Buck should be asked to review any conclusions to be stated on the basis of results contained in this report. Buck will not accept any liability for any such statement made without prior review by Buck.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards of the Academy to render the actuarial opinions contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and I am available to answer questions concerning it.

Please call or e-mail with any questions.

Sincerely,

*David L. Driscoll*

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